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ABSTRACT

This study involved a content analysis of 25 episodes of "Barney and Friends," a popular children's television series by the Public Broadcasting System (PBS). The study examined the literacy elements of "Barney and Friends" through the perspectives of emergent literacy theories. The purposes of the study were: (1) to find out what opportunities for literacy learning are offered by "Barney and Friends"; and (2) to evaluate how literacy messages conveyed by the show reflect current understanding of the process of becoming literate. Four dimensions of the show were examined as part of the content analysis: physical setting, reading activities, writing activities, and listening and speaking activities. Findings showed that, in general, "Barney and Friends" provided children with rich literacy learning experiences. In particular, the show provided children many listening and speaking opportunities, such as storytelling, dramatization, and singing along to nursery rhymes. The study suggests that the show would benefit from more reading aloud, writing activities, and attention to environmental prints displayed during an episode. (Contains 13 references.) (EV)

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Barney & Friends: An Evaluation of the Literacy Learning Environment Created by the TV Series for Children

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"Barney Time!" With these words, every morning at 7:00 a.m., my daughter is ready to participate in *Barney & Friends*. She sings the songs, plays the games, and listens to the stories with the children in *Barney & Friends*. She has been an avid lover of *Barney & Friends* ever since she was six months old. Like many other children, she watches Barney everyday, owns Barney toys, Barney dishes, and a Barney blanket.

My daughter is the only child in a Chinese-speaking home environment. She had been with Chinese-speaking caregivers before she started daycare at the age of three. At the beginning of her school life, my husband and I were a little worried about her English. We wondered if she would be able to understand and communicate with the teachers and other children speaking English at school. Every day when she came home, we would ask her what she did at school that day. She would answer, "We heard little pig's story like the one Barney told;" "we did imagination games like Barney did;" or "we sang a Barney song." For a while, Barney was referred to in this manner frequently, which made me wonder what it was about Barney that had prepared my daughter for school linguistically, academically, and psychologically. I am especially interested in finding out about the literacy learning environment that *Barney & Friends* creates for children like my daughter living in a home where English is a second language.

WHAT IS THE STUDY?

This study is a content analysis of 25 episodes of *Barney & Friends,* a popular children's television series by the Public Broadcasting System (PBS). The study examined the literacy elements of *Barney & Friends* through the perspectives of emergent literacy theories. The purposes of the study are: to find out what opportunities of literacy learning are offered by *Barney and Friends*, and to evaluate how literacy messages conveyed by *Barney & Friends* reflect current understanding of the process of becoming literate.

SIGNIFICANCE OF THE STUDY

Ernest Boyer (1991) wrote, "television next to parents is the child's most influential teacher" (p.140). Media have a tremendous influence on our children today. By the time a student finishes high school, he or she will have spent an average of 11,000 hours in school, but 15,000 hours watching TV (Cox, 1996). Given this, teaching with, through, and about children's television programs becomes an important part of our curriculum. Since motivation is a key to learning, why not use children's natural interest in TV and teach them some life skills? It is important that children's TV producers work together with education professionals to produce quality programs for children.

Second, in 1991 the Carnegie Council for the Advancement of Teaching produced a widely read and provocative report (hereafter the Carnegie Report), which summarized a major national problem: millions of children beginning formal schooling at 6 or 7 years of age are inadequately prepared for the necessities of effective school learning (Boyer, 1991). Boyer (1992) recommended "television as teacher," among the seven national strategies to prepare children to be ready to learn by 2000. Efforts should be increased to involve the TV industry and producers of related electronic media in providing early school preparation for preschoolers. Information on basic cognitive skills such as concepts of print, concepts of left-right, and of shapes and colors are significant elements of the readiness for school entry. Fostering children's emergent literacy is one of the important areas that TV programs like *Barney & Friends* can contribute to.

Third, children have many different learning styles. TV programs, with their visual and audio effects, are good learning channels for visual, auditory, and kinesthetic learners. Parents and teachers can use TV to motivate children in their learning to read, write, and think critically. The frequently quoted saying -- "I hear, I forget. I see, I remember. I do, I learn" -- can be used to justify the integration of TV programs in education.

Finally, the literacy learning environment created by programs like *Barney & Friends* means a lot to children whose home language is not English. Children's TV

programs are the only "speakers" of English at these children's homes, hence TV becomes their first English teachers. The effectiveness of the literacy learning environment created by these programs may to a great extent, influences whether these children will be well prepared for school linguistically. *Barney & Friends* is a popular children's program aimed at preschool children. The importance of examining the educational value and quality of *Barney & Friends* becomes evident.

THEORETICAL FRAMEWORK

The Barney Phenomenon

One day in the late 1980s, Barney's "Mom," Sheryl Leach, a former teacher, got stuck in a traffic jam. Her thoughts turned to the videos her 2-year-old son watched -- videos that in her opinion were mindless and taught young children virtually nothing. She thought somebody really ought to create a series for preschoolers, one that would hold their attention, sort of a better mousetrap. So, Barney, the purple dinosaur and the video became the result of Sheryl and her friends' effort.

The "Barney" video was an immediate success. Up to 1998 it has sold more than 45 million copies. In 1992 *Barney & Friends* debuted on public television as the nation's No.1 preschool show. Barney's fan club was founded in 1992, and now has more than a million members. In 1993, Barney went into the publishing business and has sold nearly 80 million books. In 1994, Barney wowed the music world with his first album, *Barney's Favorite Volume 1*, which sold more than two million copies. In 1995, the purple dinosaur soared over New York's famed Broadway in the shape of a giant balloon at the Macy's Thanksgiving Day Parade (PBS Express, 1998). The introductory song of the program "I Love You," became very well known to children of all socioeconomic and ethnic backgrounds between 2 and 7 years.

The income for licensed toys quickly put the parent company of the TV series near the very top nationally in terms of income for entertainment figures. Barney was listed as third in income in 1994 alongside personalities such as Oprah Winfrey, Michael Jackson,

and those who make up the list of high-earning entertainers (Singer, J and Sing, D. 1998). *Barney & Friends,* has and continues to hold, leadership ratings among children's shows aired on PBS.

Format and Content of *Barney & Friends*

There are five series, 100, 200, 300, 400 and 500 in *Barney & Friends*. The series contain 30, 18, 20, 20 and 20 episodes respectively, adding up to a total of 108 episodes of *Barney & Friends*. Each episode has essentially the same format with the same location.

Following a brief introduction with a title and the song "Barney is a dinosaur from our imagination..." sung to the tune of *Yankee Doodle*, we see a playground outside a small elementary school. Almost all episodes are either inside or outside the classroom.

The characters regularly include Barney and four to six children between 5 to 12 years of age. Barney is a stuffed purple toy dinosaur portrayed during the opening section in real size and becomes a 7-foot Tyrannosaurus Rex shortly into the program when he is needed by the children for something. Barney jumps around, claps hands, speaks "proper English" in a deep male voice with "ho ho" laughter. The children are "real," speak "proper English" and represent varied ethnic groups. There are two fantasy characters: Baby Bop, a 3-year-old girl dinosaur and B. J. who behaves like an 8- or 9-year-old "Little League boy."

Beginning with 300 series, a storyteller, Stella, will appear constantly to tell children a story or two. Starting from 400 series two more fantasy characters are added. One is a young fun-loving brown squirrel called Scooter McNutty, and the other is Miss Etta Kette, a lavender-feathered bird, who teaches good manners.

The plot usually involves an adventure or presents challenges to overcome. The program includes a variety of themes focusing on socialization skills, identifying emotions, multicultural issues, content knowledge, and music. Barney acts as an expediter, an explainer, a guide, and a teacher. Every few minutes, there is a song that elaborates on or emphasizes the particular issue presented previously. The songs are a mixture of original

melodies, words and of folk songs such as *Old MacDonald* or *This Old Man* to which new words have been added appropriate to the particular plot.

Each episode ends with the whole cast looking out at the audience and singing "I love you. You love me. We're a happy family..." Then Barney summarizes the main points of the episode and returns to his original small toy.

Related Studies

The Yale University Family Television Research and Consultation Center led by J. Singer and D. Singer did a series of studies on the educational value of *Barney & Friends*. These were the only studies found and available about this program.

This research group looked at six dimensions of the program: cognitive, emotional awareness, social/constructive attitudinal, physical, music and entertainment, multicultural exposure. They pronounced that *Barney & Friends* is "nearly a model of what a preschool program should be" (Singer and Singer, 1998). Their studies also concluded that *Barney & Friends* can be used as a useful addition to a readiness-to-learn curriculum at daycare settings for children from all kinds of backgrounds.

The study by Naigles, Singer, Singer, Jean-Louis, Sells, and Rosen (1995) appeared to be the closest to the present project. They sought to determine whether children between 3 and 5 years of age could increase their understanding of verbs after exposure to 10 episodes of *Barney & Friends* in their daycare centers. The findings suggested that children seemed to improve their ability to use intransitive verbs correctly after exposure to *Barney & Friends*. Children gradually learn that *come* and *go* cannot take an object in the same way that *bring* and *take* can (e.g., I bring the toy tiger here," " I take the toy and put it in my pocket"). Children also demonstrated that they could recognize the special sentence structure limits of words such as *come* and *go* after viewing the program. However, children's mental distinction of verbs: *think* , *guess* and *know* were blurred after viewing because the cast's usage of the three words took on a natural colloquial form rather than a

precise semantic form. The child viewers were led away from the formal usage toward a more colloquial or socially natural style.

A few studies are available on learning language from watching TV. It has been found that gains in noun vocabulary are possible when children watch programs in which the words are presented with careful demonstrations, slowness of pace, and melodic types of vocal emphasis (Rice, 1983; Rice, Huston, Truglio, & Wright, 1990).

Among the children's television programs, *Sesame Street* received much attention from researchers. Murphy (1989) reviewed the first twenty years of research on the educational effectiveness of *Sesame Street*, and indicated that Sesame Street had a significant positive impact on the pre-reading and school-readiness skills of children in the United States, Australia, Canada, Israel, and Mexico. Mates and Strommen (1996) analyzed 10 *Sesame Street* episodes, revealing that the literacy messages conveyed on the program do not reflect current understanding of the process of becoming literate. The study showed that hardly anybody read on *Sesame Street*.

Previous studies have indicated that children make linguistic gains watching TV when programs are appropriately presented (Rice, 1983; Rice, Huston, Truglio, & Wright, 1990). This study will attempt to answer the questions: what are the literacy learning opportunities offered by *Barney & Friends*? How do these learning opportunities reflect emergent literacy perspectives?

Emergent Literacy Perspective

One of the tasks for preschool and early elementary children is to develop their emergent literacy. Sulzby (1989) defined emergent literacy as the reading and writing behaviors of young children that precede and develop into conventional literacy. Teale and Sulzby (1989) documented that learning to read is a continuous process that begins well before children receive formal instruction in reading and writing.

According to the emergent literacy perspective, young children learn to read and write as they use writing and reading for authentic purposes, and actively construct

meaning. It is important to note that literacy development is closely related to children's environments. Literacy emerges naturally when children are in an environment that is filled with opportunities to listen to language, practice speaking language, and read and write language (Graves, Watts-Taffe & Graves, 1999). Mass (1982) argued that concepts of literacy develop gradually and that in a natural language environment, saturated with good stories, meaningful conversations, and abundant writing materials, the process can begin even before a child goes to school.

Thus, seemingly disparate activities such as singing songs, listening to stories, chanting nursery rhymes, scribbling on walls and paper, coloring, reading environmental print, and doing Show-and-Tell all help children build a foundation for literacy development. It will be very helpful if *Barney & Friends* cannot only entertain children, but also foster the emergence of their literacy development and prepare them for learning conventional reading and writing at school.

RESEARCH DESIGN

Research Questions

1. What are the literacy learning environment and opportunities offered by *Barney & Friends*?

2. How do the literacy messages conveyed by *Barney & Friends* reflect emergent literacy perspective?

Research Method

Content analysis was used in this study. The first step in this analysis was to establish specific variables that could be assessed from each of the randomly selected 25 episodes of *Barney & Friends*.

The most effective way to foster the emergence of literate activity is to create a language-rich environment - one in which students are immersed in print. A language-rich environment is one that is permeated with things to read, write, listen to, and talk about, as well as a host of opportunities to read, write, listen, and talk (Graves, Watts-Taffe &

Graves,1999). Thus, 25 specific variables were designed to reflect the types of reading, writing, listening, and speaking activities, and the physical literacy environment provided by *Barney & Friends*. Table 1 shows the specific variables used to study the above mentioned four dimensions in *Barney & Friends*.

The physical setting of *Barney & Friends* was examined to see whether it was a language-rich environment. The following questions were asked in examining the settings: Were there storybooks, magazines, newspapers, greeting cards, posters, signs and charts for alphabet, numbers and colors? Were there labels on different objects in the environment? Were there displays of children's writings and art work on the walls? Were there centers for listening, reading, writing, and art activities?

Reading was the second dimension to be studied. Did *Barney & Friends* offer authentic reading opportunities, such as reading of maps, street signs, recipes, labels, shop names, and menus? Did it offer silent reading activities for pleasure, such as reading storybooks, and browsing through picture books, concept books, and nursery rhymes? Did it offer direct instruction of reading, such as sight vocabulary learning, letter name recognition, lists and charts, and phonics?

Next, writing opportunities were examined to see if it included: scribbling, inventive spelling, authentic writings such as writing in journals, writing letters and greeting cards, writing language-experience stories, making storybooks, and making art projects including drawing and coloring.

The variables designed to identify listening and speaking activities in *Barney & Friends* include:

- singing songs/nursery rhymes,
- reading-aloud/being read aloud to,
- choral reading (chanting nursery rhymes, poems and reading together),
- story dramatization,
- storytelling with props and puppets,
- problem-solving using spoken language such as discussing, arguing, asking and answering questions, and speaking foreign languages.

- playing games refer to the play with language or language related games such as playing with rhyming words and sounds, and sound discrimination, etc.

Larger and separate spreadsheets for each of the four dimensions under study were provided to coders. There was enough room on a scoring sheet for coders to make marks for each occurrence of the variables.

Table 1. Variables Coded

I. Physical setting:	
1. children's literature	5. labels on objects
2. magazines and newspapers	6. displays of children's writings and art
3. posters/signs	
4. charts: alphabet, numbers, and colors	7. centers: reading, writing, art, and listening
II. Reading activities	
8. authentic reading	11. letter name recognition,
9. pleasure reading	12. phonics knowledge.
10. sight word learning	
III. Writing activities	
13. scribbling	16. writing language-experience stories
14. inventive spelling	
15. authentic writing	17. making storybooks
	18. making art projects
IV. Listening & speaking activities	
19. singing songs/nursery rhymes	23. story dramatization
20. playing games	24. storytelling with props and puppets
21. reading aloud and being read aloud to	25. solving problems with speech
22. choral reading	

Sample Selection

The author taped 88 episodes of *Barney & Friends* off the air from April 2, 1998 to April 16, 1999. Between April 2 and April 20, 1998, 13 episodes of the 200 series were broadcast and taped. Between April 21 and May 11, 1998, 15 episodes of the 100 series were broadcast and taped. Between May 12 and June 8, 1998, 20 episodes of the 400 series were taped. Between June 9 and July 6, 1998, 20 episodes of the 300 series were broadcast and taped, and between March 22 to April 16, 1999, 20 episodes of the 500 series were taped.

Samples were drawn randomly from the 88 taped episodes for study. Starting with the first episode in each series, episodes were selected for examination as follows: from the 13 taped 200 series, five, i.e., about every other episode was examined; from the 15 taped 100 series, five, i.e., every third episode was examined; from the 20 taped 300 series, five, i.e., every fourth episode was examined. In the same way of selection as for the 300 series, five from the 400 series and five from the 500 series were examined. Thus, a total of 25 episodes from all five series were selected and examined. Table 2. shows the series numbers and titles of the episodes studied.

Table 2. Episodes from *Barney & Friends* Examined

Episode Number	Title	Episode Number	Title
106	Four Seasons Day	301	Shawn & the Beanstalk
112	Happy Birthday, Barney!	305	Shopping for a Surprise!
119	1-2-3-4-5 Senses!	312	Gone Fishing!
125	A World of Music	315	Camera Safari
128	Home Sweet Home	320	Up We Go!
201	Falling for Autumn!	402	Is Everybody Happy?
204	Red, Blue and Circles, Too!	405	Tick Tock Clocks!
206	Hoo's in the Forest?	410	Play Ball!
216	The Alphabet Zoo	415	Good, Clean Fun!
217	Having Tens of Fun!	419	Once a Pond a Time
501	Books Are Fun!		
505	The One and Only You		
512	A Royal Welcome		
515	Aunt Rachel Is Here		
518	What's In a Name?		

Coding Procedures

Two adults were trained to evaluate the content of 25 episodes of *Barney & Friends* for its literacy, learning environment, and opportunities. One coder is a professor of media studies experienced with coding in content analysis and the other is the researcher herself. Each of the two investigators, both well acquainted with the series, viewed the episodes independently in order to identify the variables. The unit of analysis was each complete episode of *Barney & Friends*.

Every effort was made to ensure the reliability of the study. Training sessions were provided to the coders using two sample episodes (i.e., 8 % of the samples) of *Barney &*

Friends not actually employed in the study. The researcher first went over the definitions of each variable with the other coder, and then they watched the two episodes together. The responses of the two coders were compared item by item to reach a common frame of reference. After an agreement was achieved by the coders, they began watching independently five episodes from each 100, 200, 300, 400 and 500 series. They watched each episode from beginning to the end, scoring occurrences of each variable.

Periodic checks on coder agreement were made by the researcher to ensure that neither of the coders showed scoring patterns grossly different from the other. To establish reliability for coders, they randomly selected one episode from each of the five series to examine coder scores variable by variable. Agreement was found to be quite high between the two coders for these five episodes. The average reliabilities ranged between 88% to 100% for different variables. Near the end of the coding, they randomly selected two episodes they coded at the beginning and recorded them, and compared their new scores with their earlier ones item by item. Coders also took notes of their personal observations, reactions and comments on the strengths and weaknesses in presentation and performance of each episode, which were gathered after formal coding and reported with the findings.

RESULTS

Tables 3-7. show the quantitative scoring of the 25 episodes in terms of the literacy learning opportunities and environment that *Barney & Friends* created.

(1) **Reading activities**: The 100, 200, 300, 400 and 500 series each scored 7, 15, 7, 3 and 22 respectively with the 500 series rated highest (Table 3.). There were occurrences of authentic reading and pleasure reading, and some occurrences of sight word learning, and letter name and number recognition. However, there was not a single occurrence of direct instruction on phonics.

Examples of authentic readings include looking for different countries on the globe, reading letters and invitations, library cards, reading labels and tags in a grocery store. Letter name and number recognition occurred mostly in episodes "Alphabet Zoo,"

"What's in a Name?" and "Having Tens of Fun," which had alphabet and number recognition as the main theme. Reading signs attached to different animals such as B-bear, C-camel, and A-alligator occurred many times in "Alphabet Zoo." "What's in a Name?" demonstrated that children can learn the alphabet from letters in their names.

Several scenes in 500 series showed children reading storybooks silently for pleasure. "Books Are Fun" introduced the concept of library, library cards, librarians, and fun uses of books to children. Children problem solved with books. They found a book to learn about a castle in the episode, and used a book to explain to a friend the idea "Be yourself is the best."

Table 3. Reading Activities

Series No.	**100 Series**					**200 Series**					**300 Series**					**400 Series**					**500 Series**				
Episode No.	106	112	119	125	128	201	204	206	216	217	301	305	312	315	320	402	405	410	415	419	501	505	512	515	518
Variables																									
Authentic reading		1		5						2		2			1					1	2		2		1
Pleasure reading								1		1		1								1	2		1		
Sight word learning	1								3			1			2										4
Letter name/ number recognition									7	1							1						1		6
Phonics knowledge																									3
Episode Total	**1**	**1**	**0**	**5**	**0**	**0**	**0**	**1**	**10**	**4**	**0**	**4**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**2**	**4**		**4**		**14**
Series Total	**7**					**15**					**7**					**3**					**22**				

(2) **Writing activities**: Table 4. shows that not many writing activities were found. There were three in the 100 series, three in the 200 series, one in the 300 series, three in the 400 series, and eight in the 500 series. Examples of authentic writings include: children writing grocery lists, and Linda, a preschool child, drawing her name and the pictures that represent the letters in her name. She drew a leaf for L, an ice-cream cone for I, a nest for N, a dog for D and an apple for A under her name LINDA. Other writing

activities involved art, and the use of art craft from the "Barney Bag," such as making leaf and apple prints in the fall, finger painting, making animal puppets and birthday hats.

There were no occurrences of scribbling, inventive spelling and children writing language experience stories in the 25 episodes examined.

Table 4. Writing Activities

Series No.	**100 Series**					**200 Series**					**300 Series**					**400 Series**					**500 Series**				
Episodes No. Variables	106	112	119	125	128	201	204	206	216	217	301	305	312	315	320	402	405	410	415	419	501	505	512	515	518
Scribbling																									
Inventive spelling																									
Writing lang. Exp. Stories																									
Authentic writing												1													1
Making storybooks																						1			
Making art projects		2	1			1	1	1								2			1		1	3	1		1
Episode Total	**0**	**2**	**1**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**1**	**4**	**1**	**0**	**2**
Series Total	**3**					**3**					**1**					**3**					**8**				

(3) **Listening and speaking activities**: as we can see from Table 5., the highest score of literacy activities went to listening and speaking. The five series, 100, 200, 300, 400, and 500 rated 61, 65, 70, 59 and 58 respectively with the 300 series ranked highest.

Among the different listening and speaking activities, singing songs and solving problems with speech appeared to have the higher scores. There were five to 10 songs in each episode examined in all five series. The songs were usually accompanied by some kind of movements from children, such as dancing and marching around. The tunes of the songs were usually those popular and familiar to children with new words put to them. Nursery rhymes became one of the major components of the songs. The songs were tied closely with and reinforced the theme of the particular episode.

Many activities involved the use of speech in *Barney & Friends*. Some examples were: talking about the importance of washing hands before dinner, explaining how to tell

time to each other, discussing whether gifts are the only important things for birthday, talking about the different homes people and animals have, answering questions such as how many sides a shape has, learning to greet people in foreign languages, and introducing family members.

Playing games with spoken words were also identified. Some examples were: counting fingers and toes, playing with rhyming words (nose and hose), and sounds (banana was pronounced as banono), reading the poems printed on flying paper airplanes.

Table 5. Listening & Speaking Activities

Series No.	100 Series					200 Series					300 Series					400 Series					500 Series				
Episodes No. Variables	106	112	119	125	128	201	204	206	216	217	301	305	312	315	320	402	405	410	415	419	501	505	512	515	518
Sing songs/ N. rhymes	7	9	6	6	7	6	6	8	8	8	5	10	10	6	7	7	6	5	6	8	7	7	5	7	5
Reading aloud / being read aloud to		2	2					1		2		1			5						2		1		
Choral reading/N. rhymes/poem	2					1		1		1		1	1	2									1		1
Playing games			2			3	1	1	3	4		1			1					1	1				2
Story dramas				1	1						1						3			1	1	1	1		
Telling stories-props & puppets			1	1	2				1	1		1	1	1	1	1	1					1	1		
Solving problem—speech	1	1	2	6	3	3	4	1	1		4	3	3	4	2	2	4	3	5	7	2	4	3	3	2
Episode Total	**10**	**12**	**12**	**14**	**13**	**13**	**11**	**12**	**13**	**16**	**10**	**17**	**15**	**13**	**15**	**10**	**14**	**8**	**11**	**16**	**13**	**13**	**12**	**10**	**10**
Series Total	**61**					**65**					**70**					**59**					**58**				

Beginning with the 300 series, a storyteller called Stella would come in to tell children stories in some episodes. She was either dressed as a story character or as someone from the place where her story originated. Carrying a suitcase, she would claim that she had just come back from a foreign country, such as China, Egypt, Mexico, France, England, or Australia. Once her story was done, she would say, "I've got to go now", and disappear through the magic door where she came from. She taught children to

speak foreign languages, and told folk stories from around the world, such as "The Japanese Butterfly" and "The Fisherman and His Wife." She used puppets and props to tell her stories. She also invited children to dress up and act out her stories. Stella added a lot to the occurrences and quality of storytelling to the program.

Reading aloud and being read aloud to also appeared in *Barney & Friends.* Barney read aloud to children and children read books on their own on several occasions in the examined series. For example, in 500 series, Barney read the castle book and the butterfly book to children. Children read the book that teaches art project.

(4) **The literate physical settings:** the ratings were 18 for the 100 series, 24 for the 200, 17 for the 300, 12 for the 400, 35 for the 500 series (see Table 6.). The 500 series rated highest in the literate environment created by the program.

It was noted that some basic things in the physical settings of the classroom remained unchanged throughout the entire program, such as the alphabet and number charts, posters and signs, while decorations, art displays, letter boards, calendar and centers changed with the theme of a particular episode. No magazines or newspapers were seen or used in this program. It was also noted that whenever an episode was set in the classroom, it would get a higher rating in terms of literate environment than in an outside setting, where there were few labels or signs on objects, few displays of children's work, and no centers or books around. The episode "Books Are Fun" in 500 series rated 15, the highest, in all the episodes examined, because it was set in the classroom and a library. So the rating of physical settings depends a lot on the theme and location of a particular episode.

The Barney Bag was an imaginary magic bag that would provide children with anything they needed for any occasions. Children made things like birthday hats from the materials pulled out of the bag as well as set up for a picnic. The Barney Bag was regarded as a dramatic play center, or an art and writing center in the study. So whenever the Barney Bag was used, it was counted as one use of a learning center.

It was also observed that all episodes from a particular series would begin with the same scenes consisting of excerpts from that series. The ending section was the same throughout the entire program. Thus, any activities or displays appearing in the beginning and ending sections were not counted in this study.

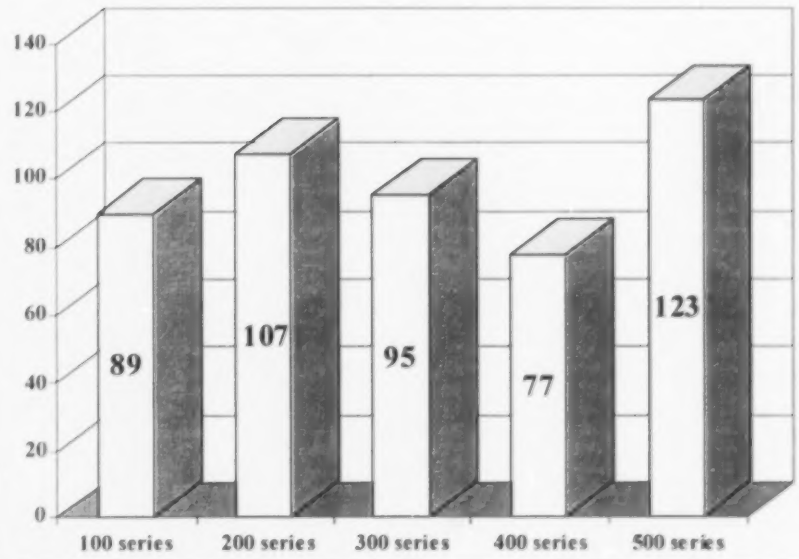
Table 6. Physical Settings

Series No.	100 Series					200 Series					300 Series					400 Series					500 Series				
Episode No. / Variables	106	112	119	125	128	201	204	206	216	217	301	305	312	315	320	402	405	410	415	419	501	505	512	515	518
Children's literature		1	1			1	1			1		1	1							1	1		1	1	
Magazines & newspapers																									
Posters/signs		1	1	1		1	1		1	1	1	1	1	1	1		1		1		1			1	3
Charts: alphabet, colors, etc.		1	1	1		1	1		1	1		1	1	1		1	1		1		2			1	5
Labels on objects		1	1	1		1	1	1	1	1		1		1	1		1		1		2			1	
Displays of writing & art		1	1	1	1	1	1		1	1		1		1		1	1		1		2	1	1	1	
Centers: Lang. Arts		1	1	1		1	1		1	1		1		1					1		7		1		3
Episode Total	**0**	**6**	**6**	**5**	**1**	**6**	**6**	**1**	**5**	**6**	**1**	**6**	**3**	**5**	**2**	**2**	**4**	**0**	**5**	**1**	**15**	**1**	**3**	**5**	**11**
Series Total	**18**					**24**					**17**					**12**					**35**				

(4) Figure 1. shows the comparison between the five series in terms of the four dimensions studied. The total literacy learning opportunities offered by each series were: 89 for the 100 series, 107 for the 200 series, 95 for the 300 series, 77 for the 400 series, and 123 for the 500 series. Again the 500 series ranked the highest.

There were a total of 54 reading activities, 18 writing activities, 313 listening and speaking activities, and 114 literate occurrences in physical settings in the five series under study. Figure 2. shows that listening and speaking activities were 7.97 times more than reading activities and were 25.5 times more than writing activities. It was obvious that there were far more listening and speaking opportunities than reading and writing.

Figure 1. Comparison: Positive Literacy Activities and Physical Settings of Five Series



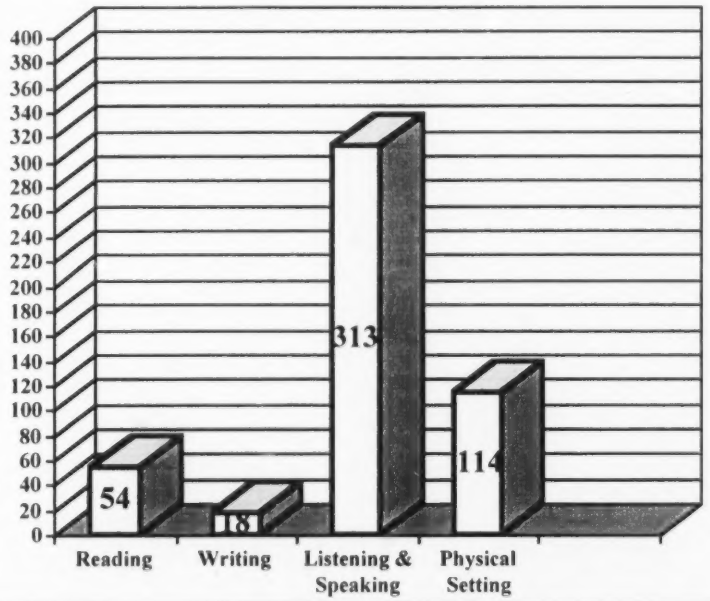
DISCUSSION AND CONCLUSION

In general, *Barney & Friends* provided children with rich literacy learning experiences. It created a positive environment for children's emergent literacy development. *Barney & Friends* made children's learning fun. The program producers were well informed about the current understanding of emergent literacy development. *Barney & Friends* certainly deserves "a pat on the back" in this aspect.

Barney & Friends immersed children in a literacy-rich environment. From the content analysis, we can see that *Barney & Friends* did a good job providing children with listening and speaking opportunities, which were two important areas in children's literacy development. It certainly made good use of children's natural interest in music and play to teach them and entertain them at the same time. *Barney & Friends* provided children with good experiences of story dramatization and storytelling as well. Children had the opportunity to listen to many popular folk stories and learn many nursery rhymes by

singing along with *Barney & Friends*. The program also provided children with many chances to practice their spoken language: to ask and answer questions, to discuss, to explain, to argue, and to comprehend spoken language. Young viewers' concepts of literacy would develop gradually while actively participating in listening to stories, singing songs and in meaningful conversations with the children in the program. Instances of direct instruction of reading and writing were not found. All the learning was done in play, i.e., children learn while being entertained and without realizing it.

Figure 2. Comparison: Different Literacy Activities and Positive Physical Setting



There are some suggestions, however, the researcher would like to make to the producers of the program. First, some stories and nursery rhyme songs such as "Twinkle Twinkle Little Star" and "Three Little Pigs" occurred repeatedly in the program. "Three Little Pigs" occurred twice in the 20 episodes examined. In Episode 128 there was a dramatization of the story "Three Little Pigs", and in Episode 402 children did a puppet show of the same story. More varieties of stories and nursery rhymes would add to children's experiences.

The researcher also felt that the numbers of songs in some episodes were a little too many. For example, in Episodes 305 and 312 there were 10 songs. Children would benefit from increased program time devoted to reading aloud and being read aloud to using big books. Children would also benefit if there were more writing activities. More time could have been devoted to activities that model writing, such as writing invitations and greeting cards, making language experience stories together, or modeling storybook making, from which children can actually see print. In other words, the researcher would suggest the producers keep a balance between the time devoted to singing songs and reading and writing activities.

Third, the program could have drawn children's attention more often to environmental prints displayed. For example, in Episode 201, "Falling for the Autumn," Barney could have directed children's attention to the sign "Fall Festival" placed on a tree and modeled the reading of the two words.

The physical settings of playground, and other outdoors could use some more displays of literacy. Environmental print, street signs and labels could be used in various outdoor places as well.

In conclusion, *Barney & Friends* is a great program for preschool children in general and for children whose home language is not English in particular. The rich experiences *Barney & Friends* offer children in listening and speaking, and the numerous stories and nursery rhymes children learn from it, help prepare them for school linguistically and culturally.

Barney & Friends was developed by parents and educators, who understand, respect and love children. Along with the newly developed instruction guide, *Barney & Friends Watch Play & Learn*, we hope this study will encourage more parents and daycare providers to use the series as an educational tool that their children will truly enjoy.

Barney & Friends serves the Ready to Learn Act (Boyer, 1991) well. It offers the viewing children dozens of opportunities for learning that could be of significance in preparing preschoolers for the formal demands of school.

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